

**Trade and Industrial Education**  
**Course: Automotive: Electronics**  
**Course Code # 5713**  
**2 Credits**

**School Year** \_\_\_\_\_

**Term:** \_\_\_\_ **Fall** \_\_\_\_ **Spring**

Student:	Grade:
Teacher:	School:
Number of Competencies in Course: <b>43</b>	
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

**STANDARD 1.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Lead a team.			
1.2	Participate in SkillsUSA-VICA as an integral part of classroom instruction.			
1.3	Assess client complaint and apply problem-solving and decision-making skills to communicate with the client.			
1.4	Demonstrate teamwork skills.			

**STANDARD 2.0: Students will demonstrate automotive technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements for an automotive repair facility.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Determine safe and correct procedures for working with electricity in an automotive repair facility.			
2.2	Use protective clothing, eye protection, and safety equipment.			
2.3	Use fire protection equipment.			
2.4	Follow OSHA and EPA regulations and manufacturers specifications affecting electrical and electronic automotive systems.			
2.5	Respond to safety communications referring to electrical and electronic systems.			
2.6	Pass with 100 % accuracy a written examination relating to safety issues.			
2.7	Pass with 100% accuracy a performance examination relating to safety.			
2.8	Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.			

**STANDARD 3.0: Students will apply fundamental electrical, electronic, and electromagnetic concepts to automotive service technology.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Analyze the basic characteristics of electricity.			
3.2	Apply Ohm's law to automotive technology.			
3.3	Examine electrical circuit structures.			
3.4	Determine the role of electromagnetism in automotive technology.			
3.5	Explore the use of Digital Multimeters (DMM) in automotive technology.			

**STANDARD 4.0: Students will properly test, diagnose, and repair or service automotive general electrical systems.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Interpret schematics, diagrams, and reference information used in automotive electrical diagnosis.			
4.2	Use strategy-based diagnostics for determining the cause of a fault in an electrical circuit.			
4.3	Demonstrate the use of equipment and tools for electrical testing and diagnosis.			

**STANDARD 5.0: Students will properly test, diagnose, and service automotive batteries.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
5.1	Analyze the function and operation of a battery.			
5.2	Diagnose battery problems.			
5.3	Perform battery service.			

**STANDARD 6.0: Students will properly test, diagnose, and repair or service automotive starting systems.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
6.1	Analyze the function and operation of an automotive starting system.			
6.2	Diagnose starting system problems.			
6.3	Perform starting system service.			

**STANDARD 7.0: Students will properly test, diagnose, and repair or service automotive charging systems.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
7.1	Analyze the function and operation of an automotive charging system.			
7.2	Diagnose charging system problems.			
7.3	Perform charging system service.			

**STANDARD 8.0: Students will properly test, diagnose, and repair or service automotive lighting systems.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
8.1	Analyze the operation of automotive lighting systems.			
8.2	Diagnose lighting system problems.			
8.3	Perform lighting system service.			

**STANDARD 9.0: Students will properly test, diagnose, and repair automotive gauges, driver information systems, warning circuits, and electrical accessories.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
9.1	Analyze the operation of automotive gauges, sending units, warning lights, speedometers, tachometers, electronic instrument panels and accessories.			
9.2	Diagnose problems with gauges, sending units, warning lights, speedometers, tachometers, electronic instrument panels and accessories.			
9.3	Perform repairs on gauges, sending units, warning lights, speedometers, tachometers, electronic instrument panels and accessories.			

**STANDARD 10.0: Students will demonstrate communication skills required in the automotive service industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
10.1	Communicate and comprehend oral and written information pertaining to electrical and electronic systems.			
10.2	Solve electrical problems and make decisions using a logical process.			
10.3	Use teamwork skills to solve problems relating to electrical and electronic system issues.			

**STANDARD 11.0: Students will demonstrate interpersonal and employability skills required in the automotive service industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
11.1	Infer relationships between honesty, integrity, and organization and personal job success.			
11.2	Demonstrate attitudes conducive to workplace success.			
11.3	Maintain electrical and electronic equipment in a neat and orderly work area.			
11.4	Assess implications of cultural and religious diversity for classroom and workplace relationships.			
11.5	Develop individual and team time management and work sequencing skills to increase productivity in electrical and electronic systems diagnostics and repair.			

Additional Comments \_\_\_\_\_